



The Forever Open Road
Presented for FEHRL by Bob Collis,
November 2009

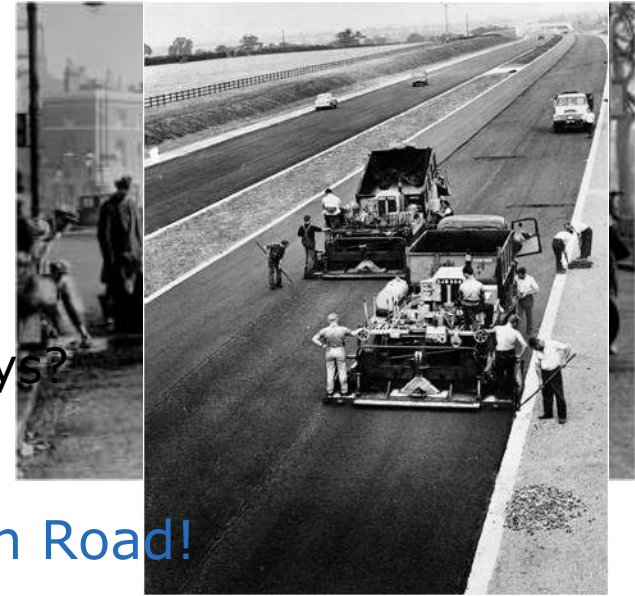


The Forever Open Road

- 1 The 5th Generation Road
- 2 The Forever Open Road Concept
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The 5th Generation Road

- Past **WOW!** Factors in Road Construction?
 - 1st generation – the track?
 - 2nd generation – the paved road?
 - 3rd generation – the smooth road?
 - 4th generation – the continuous road/motorways?
 - **What will the 5th Generation Be Like?**
- We need start to develop the 5th Generation Road!
 - Solves existing and future problems
 - Achievable through new technology
- Stakeholders need to be convinced that there's a workable concept!
 - Must be a long-term pan-European solution
 - Must have lots of costs savings and benefits
- There must be a champion to drive it forward!



Why do we need a 5th Generation Road?

■ Address Global Challenges

- Climate Change
- Carbon Reduction
- Energy Generation
- Global Financial Crisis



What should the 5th Generation Road do?

■ Meet European Targets

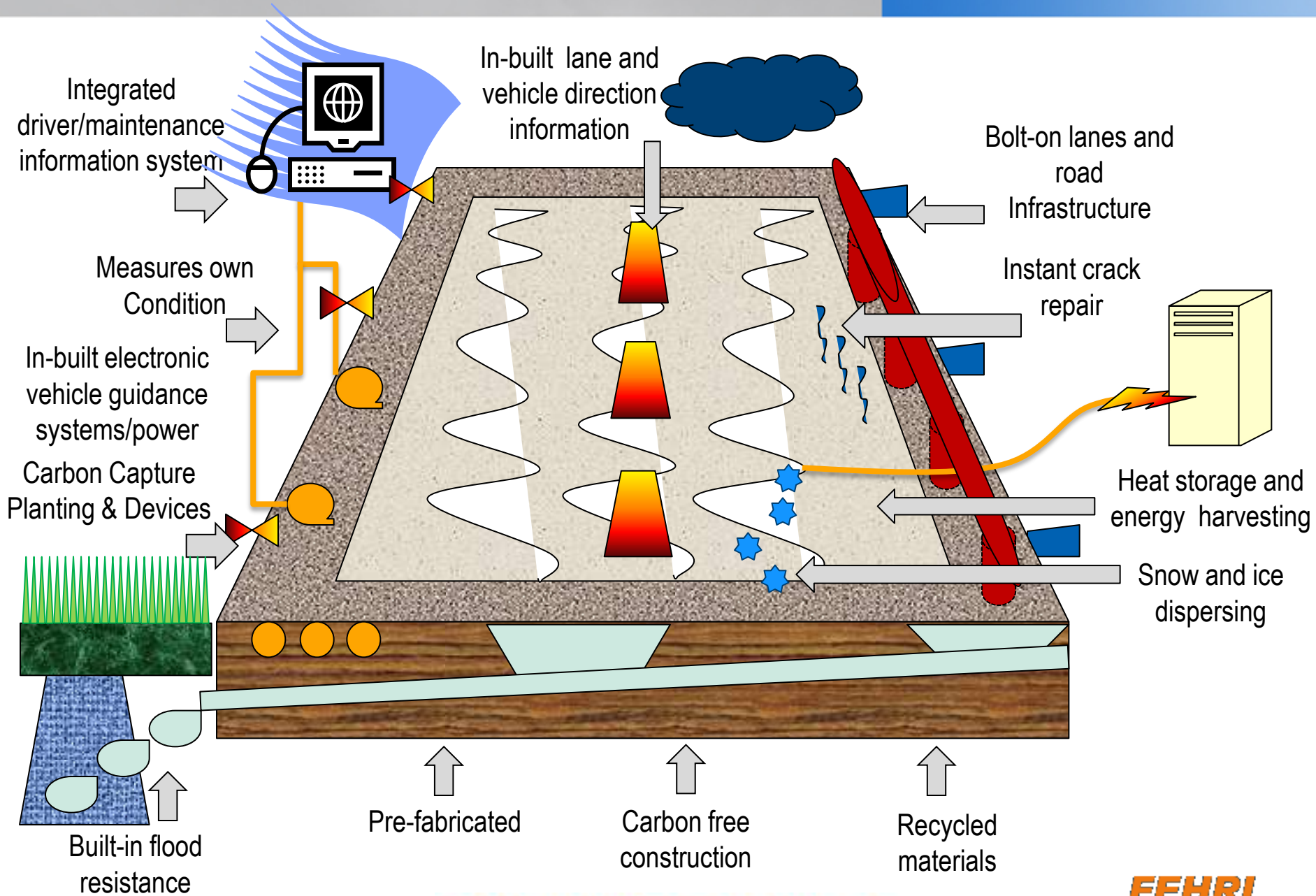
- Safe and Secure Road Transport System
- Highly Competitive and Sustainable Products and Services
- Cleaner, Quieter and More Energy Efficient Road Transport
- Enhanced Mobility, Optimised and Efficient Seamless Systems



The 5th Generation Road Idea

- Takes all our existing ideas and produces one solution that will support all our future needs....
 - the Adaptable Road
 - the Automated Road
 - the Climate Change Resilient Road
- A concept that will...
 - provide an integrated system
 - be adaptable to future travel demands
 - provide low-cost automated travel
 - produce sustainable benefits
- Be Forever Open





The Forever Open Road Concept

- The 5th Generation Road that will be Forever Open
- With zero delays from:
 - congestion,
 - accidents,
 - roadworks,
 - maintenance.
- The Forever Open Road is a concept being developed by FEHRL
- It will meet our future road infrastructure requirements
- By being flexible and sustainable.

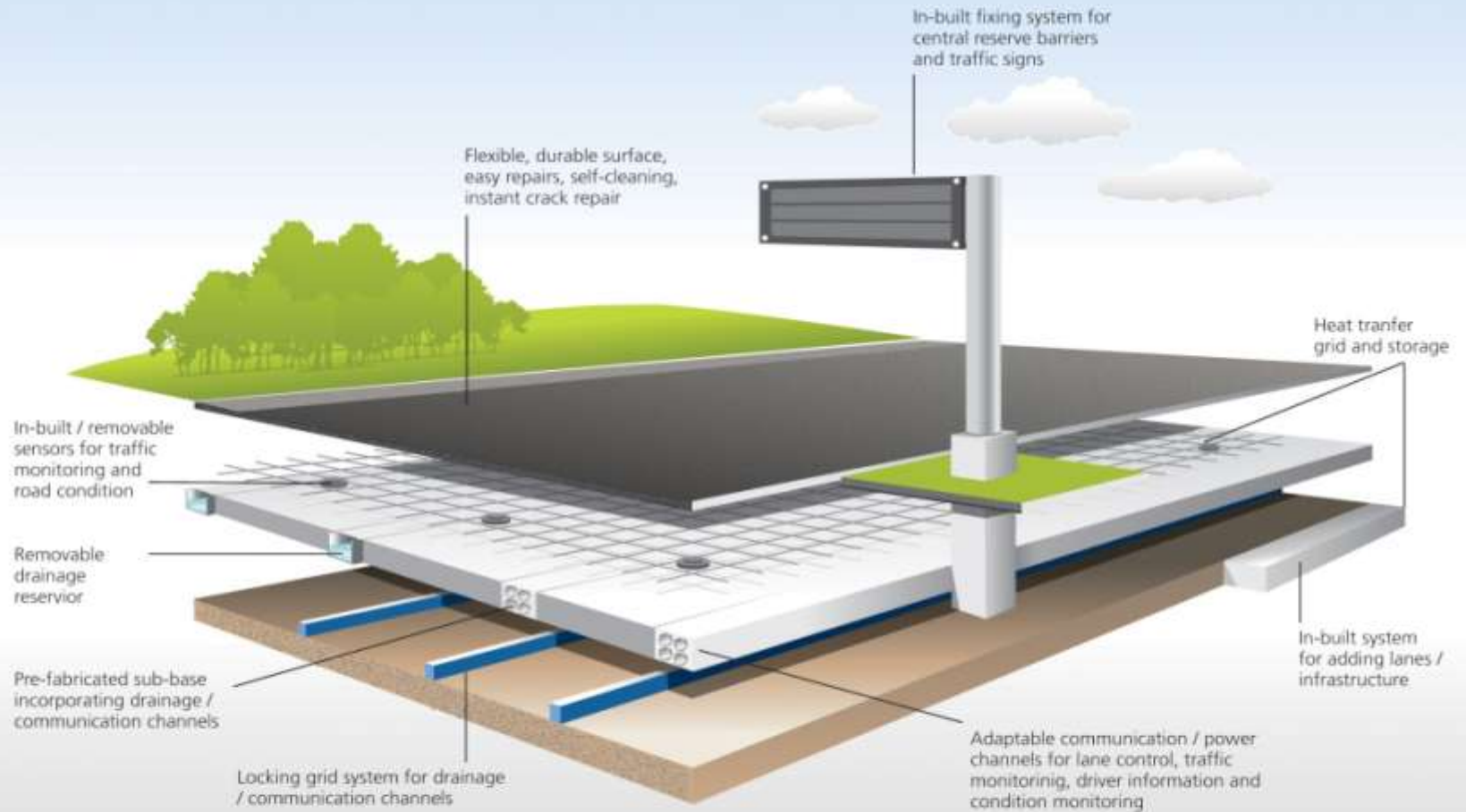
FOREVER OPEN ROAD
Redefining Highway Transport for the 21st Century



FEHRL



The adaptable road





The climate change resilient road

Solar energy harvesting and storage for moderating pavement temperature to prevent frost and transfer energy to roadside infrastructure

Roadside lighting and signs powered by captured energy

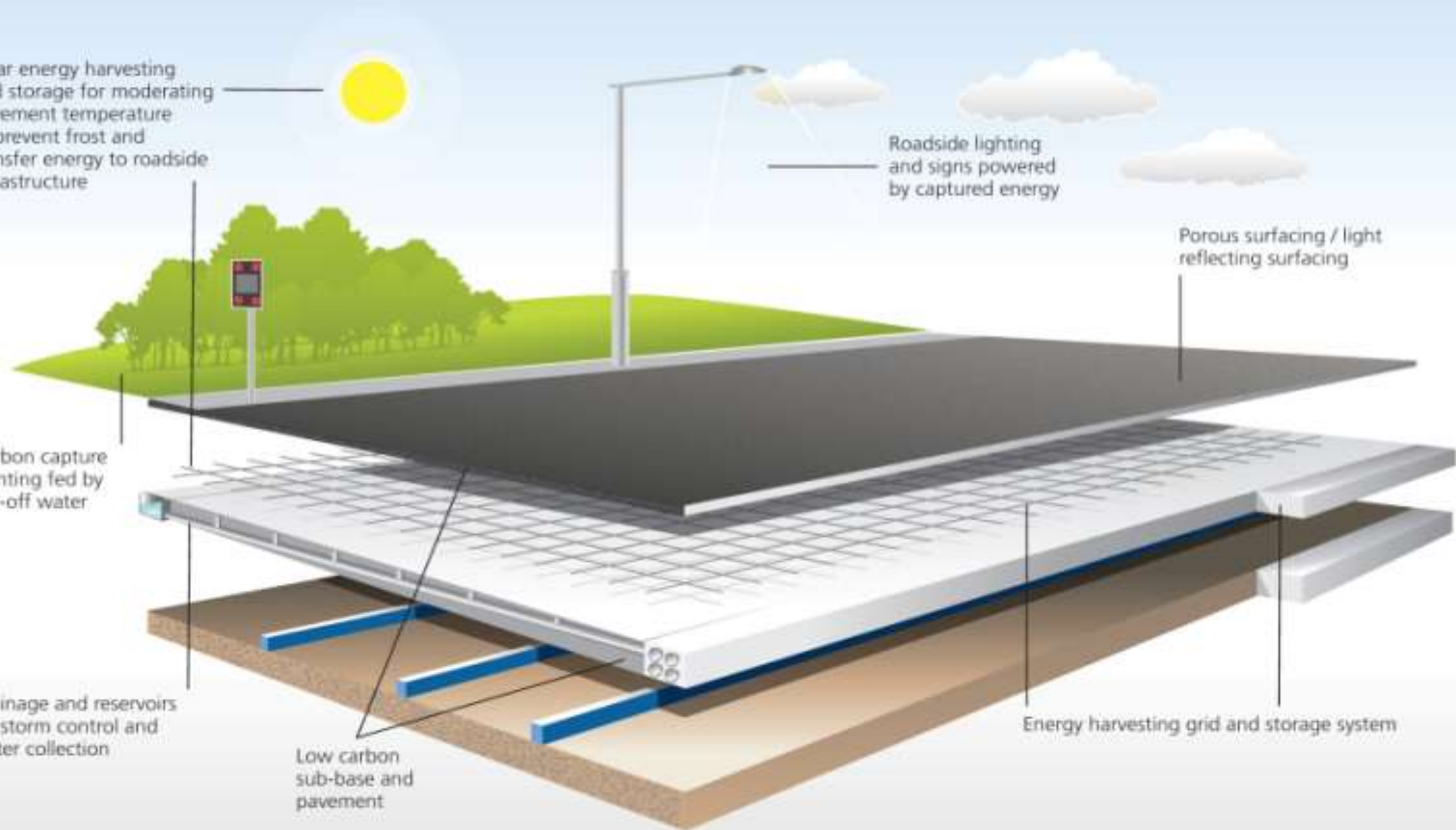
Porous surfacing / light reflecting surfacing

Carbon capture planting fed by run-off water

Drainage and reservoirs for storm control and water collection

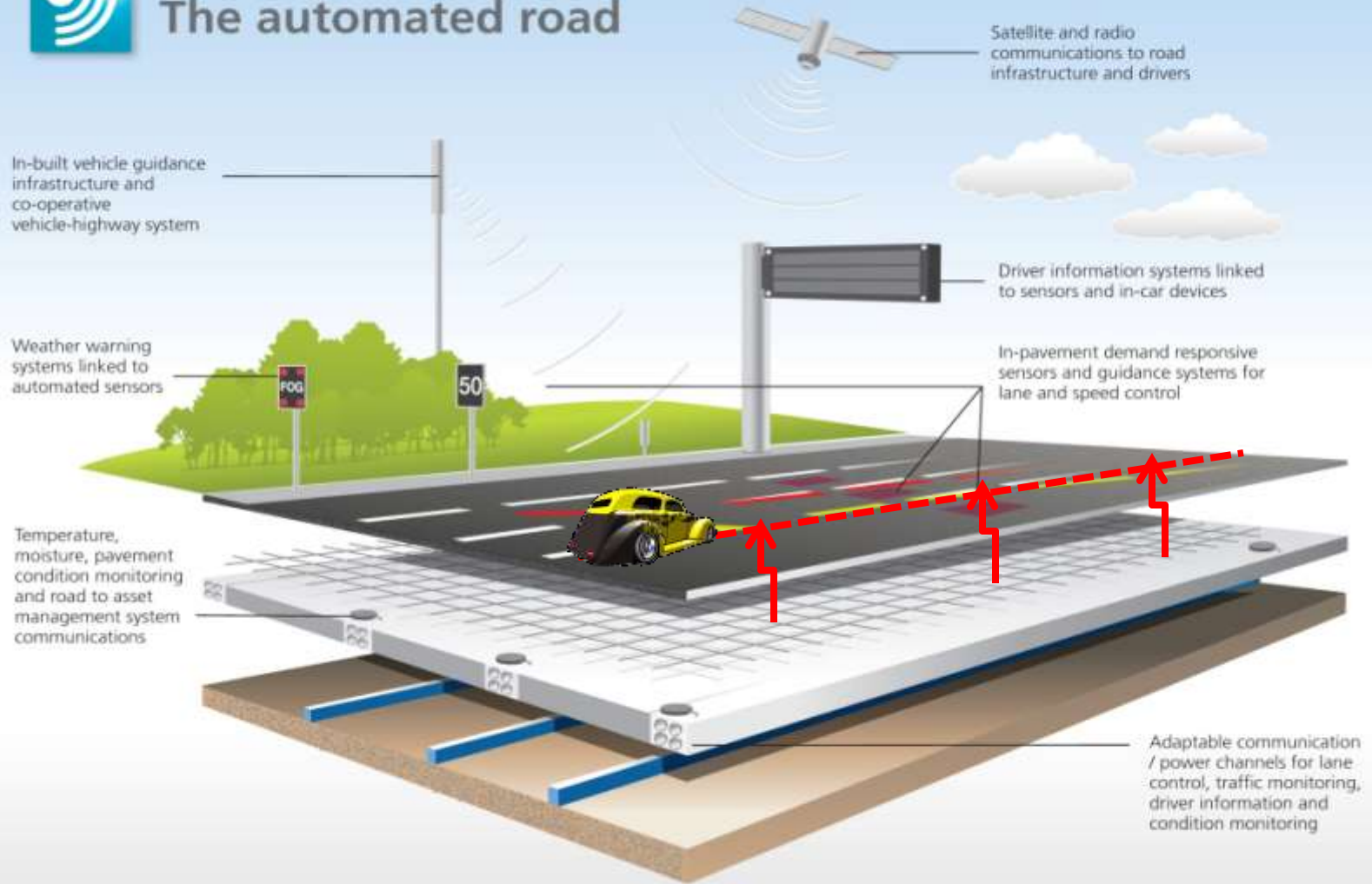
Low carbon sub-base and pavement

Energy harvesting grid and storage system



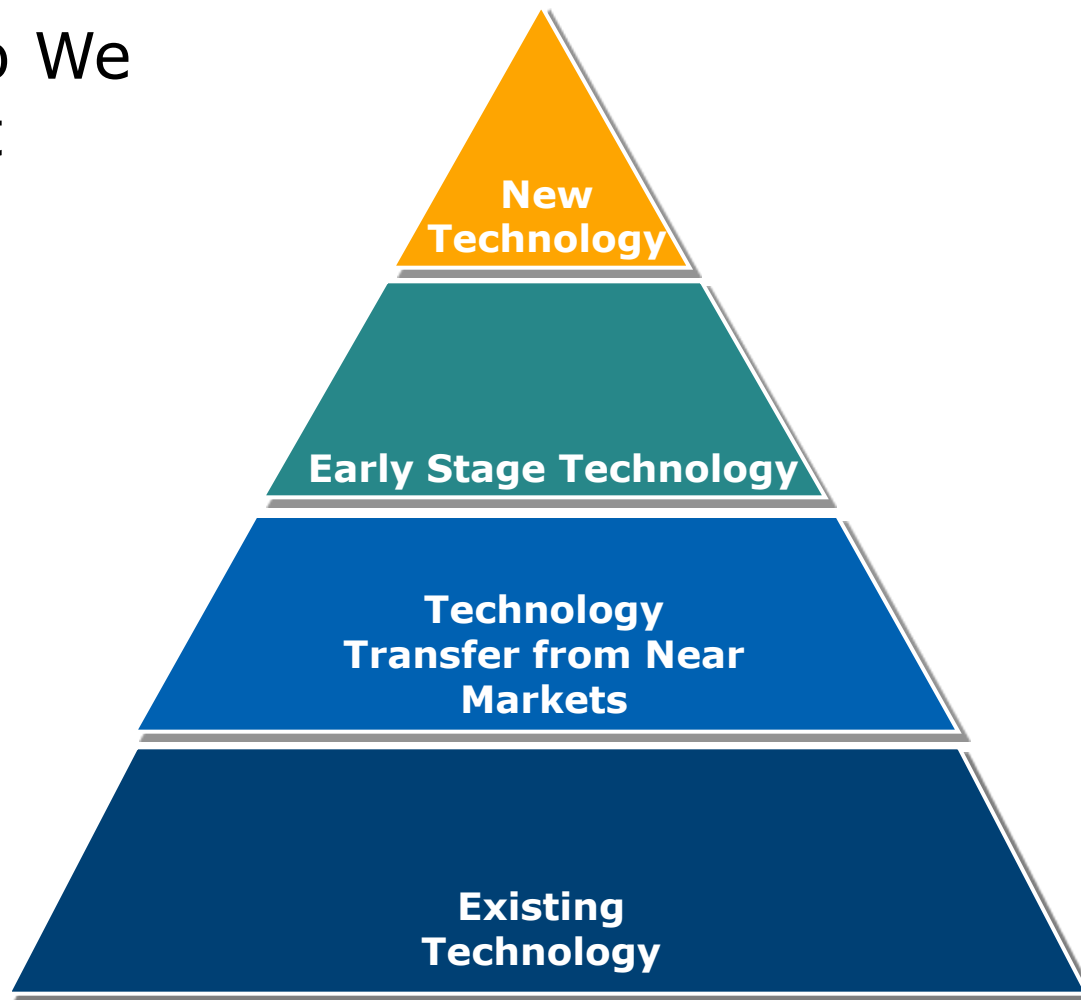


The automated road

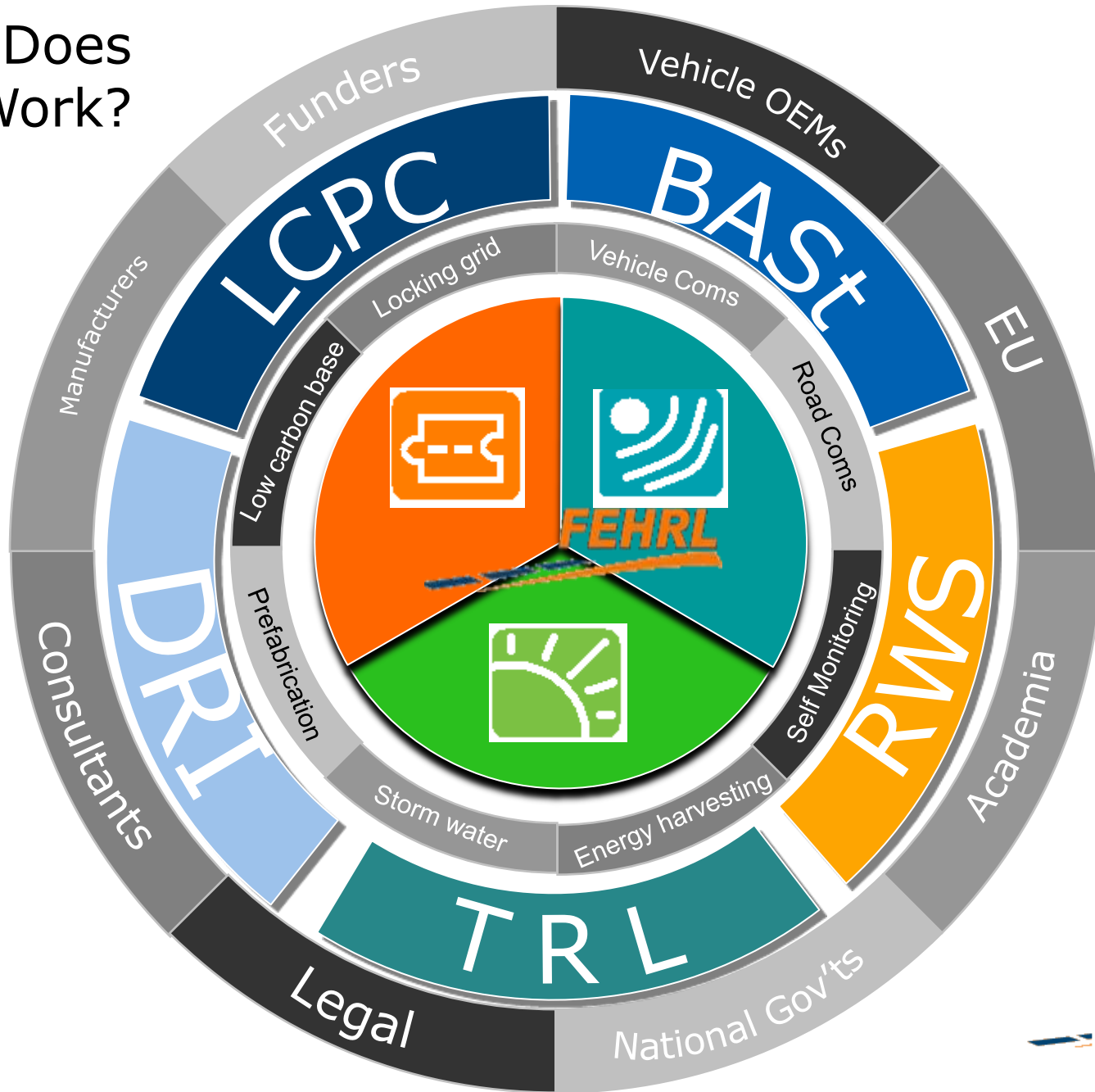


The Challenges

- How Do We Make It Work?

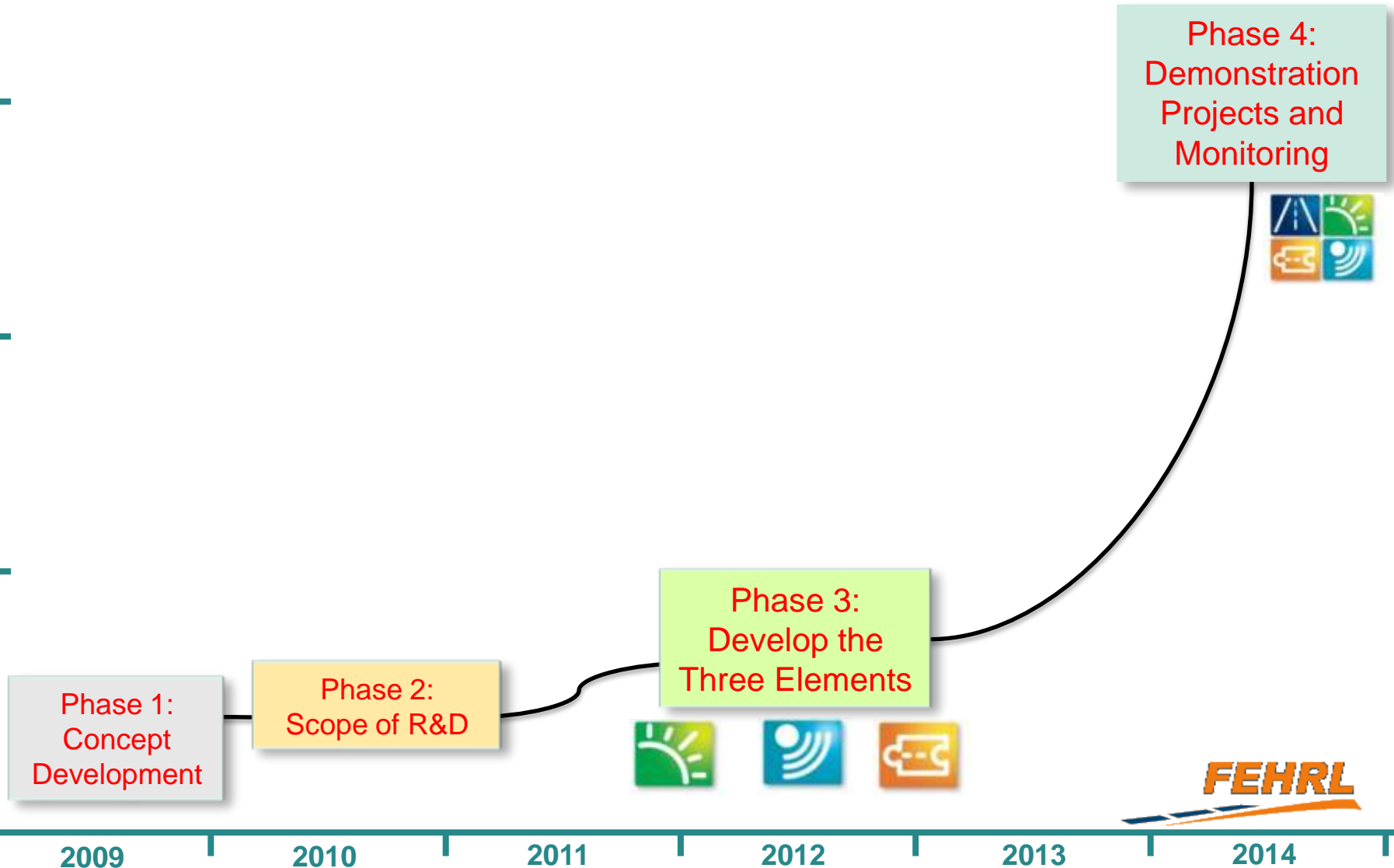


- Who Does the Work?



What Happens Next...

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Getting Involved

- The Programme is being taken forward by:
 - LCPC (France)
 - BAST (Germany)
 - DRI (Denmark)
 - RWS DVS (Netherlands)
 - TRL (UK)
- FEHRL is seeking support and funding from:
 - Governments
 - Academic institutions
 - Industry



Thank You

